Before the
Federal Communications Commission
Washington, D.C. 20554

TRS State Certification Application	)	CG Docket No. 03-123
	)	
	)	

Application for Recertification of Pennsylvania Telecommunications Relay Service (PA TRS)

and

Application for Recertification of Pennsylvania Captioned Telephone Relay Service (PA CTRS)

for

2018 - 2023

Louise Fink Smith
Assistant Counsel
PA Attorney ID No. 77373

Kathryn G. Sophy
Deputy Chief Counsel

Bohdan R. Pankiw
Chief Counsel

Eric Jeschke, Analyst

Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265
(717) 787-5000
December 20, 2017

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BACKGROUND

Pursuant to Title IV of the Americans with Disabilities Act of 1990, Section 225 of the Communications Act of 1934, as amended, 47 U.S.C. § 225, and Sections 64.601 – 64.605 of the Code of Federal Regulations, 47 C.F.R. §§ 64.601 – 64.605, and in accordance with the Federal Communications Commission's (FCC) Public Notice, released July 19, 2017, at DA 17-697, the Pennsylvania Public Utility Commission (PA PUC), on behalf of the Commonwealth of Pennsylvania (Pennsylvania), hereby applies for renewal of the Pennsylvania Telecommunications Relay Service (PA TRS) certification and for renewal of the Pennsylvania Captioned Telephone Relay Service (PA CTRS) certification for the 5-year period beginning July 26, 2018, and ending July 25, 2023.[1] The PA TRS has been certified by the FCC since July 26, 1993. The PA CTRS has

[1] CTRS is an optional offering pursuant to the federal regulations.

been certified by the FCC since July 26, 2008. The PA TRS and PA CTRS are currently certified by the FCC through July 25, 2018.

PA TRS AND PA CTRS PROVIDERS

Hamilton Relay Inc. (Hamilton Relay) is certificated by the PA PUC as the service provider for the PA TRS. Hamilton Telephone Company d/b/a Hamilton Telecommunications (Hamilton Telephone) is the contracted provider for the PA CTRS. These two entities are affiliated subsidiaries of Nedelco Inc. of Aurora, Nebraska. They provide relay services in several other state jurisdictions. Both service providers assisted in the preparation of this application.

EQUIPMENT DISTRIBUTION FOR LOW INCOME RELAY SERVICE USERS

Pennsylvania provides free customer premises equipment to low-income relay service users. The Pennsylvania Department of Labor and Industry oversees that program, known as the Pennsylvania Telecommunications Device Distribution Program (TDDP).

COMPLIANCE WITH 47 C.F.R. § 64.404

Pursuant to 47 C.F.R. § 64.604, the PA TRS and PA CTRS must:

1. Meet all operational, technical, and functional minimum standards contained in 47 C.F.R. § 64.604;

2. Be subject to adequate procedures and remedies for enforcement of requirements.

3. Not conflict with federal law.

1. Operational, Technical, And Functional Standards

The legislative mandate in Pennsylvania's *Universal Telecommunications and Print Media Access Act* (UTPMA), 35 P.S. §§ 6701.1 – 6701.4, endows the PA PUC with the responsibility "to

design and implement a telecommunications relay service program for [Pennsylvania] that is consistent with and meets or exceeds the requirements of the Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Stat. 327)." Section 6701.4(b) of UTPMA further authorizes the PA PUC "to seek on behalf of [Pennsylvania] certification of the telecommunications relay service program" from the FCC. The documentation included in the Appendices to this application details Pennsylvania's compliance with the FCC's operational, technical, and functional minimum standards at 47 C.F.R. § 64.604. Changes to relay service in Pennsylvania are documented by PA PUC orders at Docket Nos. M-00900239, *et al.*

2. Enforcement

The PA PUC is committed to ensuring that there are adequate procedures and remedies available for enforcing the state requirements and to ensuring compliance with FCC requirements. Hamilton Relay operates the PA TRS pursuant to its certificate of public convenience and a filed tariff. Hamilton Telephone operates the PA CTRS pursuant to a contract that was negotiated with the PA PUC after being selected in a competitive request-for-proposal process. Each service provider is obligated to comply with federal and state laws and regulations. A service provider's failure to provide relay service equal to or better than the requisite minimum standards could result in sanctions up to and including loss of the privilege to provide the service. Pursuant to the provisions of the Pennsylvania Public Utility Code, 66 Pa. C.S. §§ 101 - 3316, the PA PUC has the power to revoke a public utility's certificate of public convenience and impose civil penalties for violation of the Public Utility Code, PA PUC regulation, final direction, or order. *See, e.g.*, 66 Pa. C.S. §§ 501 – 502. The PA PUC also has the power to cancel or to decline to renew the PA CTRS contract for violation of the Public Utility Code, PA PUC regulation, final direction, order, or contract non-conformance.

3. No Conflicts

The PA TRS and PA CTRS service providers are not authorized to operate in any way that conflicts with federal law or regulation.

There have been two program changes to the relay service available in Pennsylvania since the last FCC recertification in July 2013. On January 26, 2015, the PA PUC provided a Secretarial Letter to the FCC regarding notice of the replacement of AT&T Corp with Hamilton Relay as Pennsylvania's intrastate TRS provider. Additionally, the PA PUC recently granted the Hamilton entities temporary partial waivers of the state obligations relative to equal access and billing option at PA PUC Docket Nos. P-2017-2596198 (TRS, Hamilton Relay) and P-2017-2596108 (CTRS, Hamilton Telephone). The PA TRS and PA CTRS service providers requested the state waivers in conjunction with temporary partial waivers granted by the FCC in *In the Matter of TRS and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Hamilton Relay, Inc., and Sprint Corp.; Petitioners for Interim Waiver of Sections 64.604(b)(3) and 64.604(a)(3)(ii)*, CG Docket No. 03-123, (DA 16-963) 31 FCC Rcd 9511 (2016).

EXEMPTIONS FOR COIN SENT-PAID CALLS

Currently, the PA PUC is exempt from the requirement to handle coin sent-paid calls until the technology will allow provisioning of such calls. The PA PUC notes that, presently, calls made from payphones in Pennsylvania are in accordance with the FCC's "Alternative Plan" at CC Docket No. 90571, which enables TRS and CTRS users to: (1) to make local TRS and CTRS payphone calls free of charge and (2) to make toll calls by calling card or prepaid (debit) cards with rates equivalent to or less than those that would apply to a similar non-TRS or non-CTRS call made using coin sent-paid service. As such technology remains out of reach, the PA PUC requests a continuing exemption,

until technology will allow such call provisioning, from the requirement that the PA TRS and/or PA CTRS handle coin sent-paid calls.

CONCLUSION

Therefore, the PA PUC, on behalf of the Commonwealth of Pennsylvania, seeks recertification of PA TRS and PA CTRS for the period from July 26, 2018, until July 25, 2023. The PA PUC was granted an extension of time to file this application. If you have any questions concerning this application for certification renewal, please feel contact Louise Fink Smith, PA PUC Law Bureau, finksmith@pa.gov, or Eric Jeschke, PA PUC Telecom Group, Bureau of Technical Utility Services, ejeschke@pa.gov.

Respectfully submitted,
Pennsylvania Public Utility Commission

Louise Fink Smith, Esq., Assistant Counsel
Pennsylvania Public Utility Commission
P.O. Box 3263
Harrisburg, PA 17105-3265
(717) 787-5000
Email: finksmith@pa.gov

December 20, 2017

SUMMARY OF THE PA TRS and PA CTRS

In September 1989, the Pennsylvania Telephone Association (PTA) transmitted a *White Paper Summary of Findings* to the PA PUC relative to the provision of relay service. In it, PTA iterated the needs of the hard-of-hearing and deaf community and advocated the establishment of a statewide relay system. In October 1989, the PA PUC responded to PTA, agreeing with PTA's suggestion to establish a statewide relay system. The PA PUC requested that PTA submit a definite plan in the form of a *Petition to Establish a Pennsylvania Relay System (PA TRS)*. In February 1990, PTA submitted a *Request for Proposal (RFP) for Relay Service*, which was reviewed and accepted by the PA PUC. Formal offers (applications) to provide the contemplated PA TRS were submitted by four prospective service providers and reviewed by a Bid Committee. On May 29, 1990, the PA PUC, at Docket No. M-00900239, granted the PTA Petition and established the PA TRS. The PA PUC also granted AT&T's application at Docket No. A-310125 for a Certificate of Public Convenience (CPC) to provide PA TRS, in response to the RFP. AT&T continued, until December 16, 2014, to provide PA TRS under a CPC at PA PUC Docket No. A-311163, consistent with its AT&T PA PUC Tariff No. 24.

In conjunction with establishment of the PA TRS, the TRS Advisory Board was formed to provide the PA PUC with constituent input on relay matters. The PA PUC's May 29, 1990 Order further established a uniform monthly surcharge (TRS surcharge) based on total access lines in service as the funding mechanism to recover costs associated with the operation the PA TRS. Pennsylvania's Local Exchange Carriers (LECs) collect the TRS surcharge from residential and business wireline access line customers. The funds are remitted monthly to a Fund Administrator. The TRS surcharge is recalculated at least annually by the PA PUC.

In 1995, the PA TRS and the TRS Surcharge were codified at 35 P.S. § 6701.4.[2] At the same time, the Pennsylvania Telecommunication Device Distribution Program (PA TDDP or PA TDD Program) was created by 35 P.S. § 6701.3. The PA TDDP provides free customer premises equipment to low-income relay service users in Pennsylvania. The TDD Program is operated by the Office of Vocational Rehabilitation (OVR) in the Pennsylvania Department of Labor and Industry. Pennsylvania's Initiative on Assistive Technology (PIAT), Institute on Disabilities at Temple University (IDT) located in Philadelphia, Pennsylvania, is the current PA TDD Program manager under contract to OVR. The PA TDDP is funded through the TRS Surcharge.

In 2003, the PA PUC began a trial of captioned telephone relay service (CTRS). The trial progressed to interim service, and in 2006, a contract CTRS provider was selected through an RFP process. The contract was finalized in 2007, and Hamilton Telephone began providing PA CTRS. The PA TDDP also provides free customer premises equipment to low-income CTRS users in Pennsylvania. Hamilton Telephone's current contract runs through June 30, 2019.

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[2] This statute was further amended in 2004 to add the Print Media Access System Program (PMASP) at 35 P.S. § 6701.3a, and is now known as the *Universal Telecommunications and Print Media Access Act* (UTPMA Act). The PMASP provides a reading service which gives access to print media for persons who are blind. The PMASP is also funded by the TRS surcharge but is not subject to FCC oversight.

In 2014, AT&T advised the PA PUC that it wished to abandon its CPC to provide TRS in Pennsylvania. An RFP for a new TRS provider was issued. On December 4, 2014, at Docket No. A-2014-2447601, the PA PUC approved the application of Hamilton Relay to operate as Pennsylvania's certificated intrastate TRS provider pursuant to its responsive bid. A CPC to provide TRS was issued to Hamilton Relay on January 9, 2015. AT&T's CPC to provide TRS was cancelled. As of December 16, 2014, Hamilton Relay received the hand-off from AT&T and began providing the Pennsylvania intrastate TRS.

Since inception of the PA TRS, PA LECs have remitted the monthly TRS surcharge collections to a Fund Administrator which disburses the fund monies necessary for the operation of the PA TRS, CTRS, TDDP, PMASP, and TRS Board operations. In 2008, the PA PUC modified its policy guidelines relative to the TRS surcharge and codified the TRS surcharge process in regulations at 52 Pa. Code § 63.37. The modification and codification added specific penalties for the failure of a LEC to comply with TRS surcharge requirements. Hamilton Telephone and Hamilton Relay are compensated monthly by the Fund Administrator based on the reported call volumes for the preceding month. Currently, the PA TRS Fund Administrator is US Bank Institutional Trust & Custody in Philadelphia, PA.

PA TRS is accessible via 711 abbreviated dialing. PA CTRS users can be reached by calling 877-243-2823 (English) or 866-217-3365 (Spanish). Both the PA TRS and the PA CTRS have significant consumer education components. Hamilton Relay and Hamilton Telephone respond to customer issues and complaints consistent with federal and PA PUC requirements. All PA TRS and PA CTRS users have access to the full array of the PA PUC's consumer protections and complaint procedures if there are unresolved issues with either relay service. The PA TRS Board is another avenue for PA TRS and PA CTRS users to bring matters to PA PUC attention.

In addition to ensuring that the PA TRS and PA CTRS providers comply with state requirements, PA PUC staff regularly participate in National Association for State Relay Administration (NASRA) functions to ensure the highest level of conformance with national TRS and CTRS standards and to ensure that there are no conflicts with federal law in the operation of PA TRS and PA CTRS. Further, the PA TRS, PA CTRS, and PA TDDP are subject to audit provisions and whistleblower protections.

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PA TRS and PA CTRS Certification Application

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- Tariff TRS PA P.U.C. No. 1
- OPENION & ORDER Pennsylvania TRS Relay Annual Surcharge Recalculation, M-2017-2582552
- ORDER Petition of Hamilton Relay (P-2017-2596198) and Hamilton Telecommunications (P-2017-2596108) Waiver of Equal Access & Billing Requirements
- Pennsylvania TRS Advisory Board By-Laws

Section 1 Introduction

This is an application on behalf of the Commonwealth of Pennsylvania and the Pennsylvania Public Utility Commission (PA PUC), submitted by the PA PUC's Bureau of Technical Utility Services (TUS) and the PA PUC's LAW Bureau to have the Pennsylvania Telecommunications Relay Service (PA TRS) be recertified as a Telecommunications Relay Service (TRS and CTRS) pursuant to the rules and procedures set forth by the Federal Communications Commission (FCC). The Commonwealth of Pennsylvania is currently certificated for TRS and CTRS for the period July 26, 2013, through July 25, 2018.

Official notices, documentation and correspondence related to this application should be directed to:

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street, PO Box 3265
Harrisburg, PA 17105-3265

PA PUC Docket No. M-00900239 and
PA PUC File No. Bp8 2615659

Operational questions about PA TRS and PA CTRS may also be directed to the following:

Dixie Ziegler
Vice President of Relay
Hamilton Relay, Inc.
1006 12th Street
Aurora, NE 68818
Voice/TTY: 402-694-5101
Fax: 402-694-5037
E-mail: dixie.ziegler@hamiltonrelay.com
Website: www.hamiltonrelay.com

Request for Renewal of Current Pennsylvania Certification

PA TRS provides traditional (teletype- or TTY-based) TRS, Spanish language traditional TRS, and speech-to-speech relay (STS) service. PA CTRS also offers captioned telephone relay service. In this Application for renewal of its certification, the PA PUC has included documentation that describes its relay program and includes its procedures and remedies for enforcing any requirements that the program may impose. This Application also demonstrates that the Pennsylvania relay programs make available informational materials on Pennsylvania and FCC complaint procedures sufficient for users to know the proper procedures for filing complaints. This Application is submitted in narrative form.

This Application sufficiently documents that PA TRS and PA CTRS meet or exceed all the applicable operational, technical and functional mandatory minimum standards set forth in Section 64.604 of the FCC's rules, 47 C.F.R. § 54.604. This Application also demonstrates that the PA PUC relay programs do not conflict with federal law.

Wherefore, the PA PUC requests that the FCC certify the Pennsylvania relay programs provided through Hamilton Relay, Inc. (for PA TRS) and The Hamilton Telephone Company d/b/a Hamilton Telecommunications (for PA CTRS) (respectively Hamilton Relay and Hamilton Telephone and collectively, "Hamilton"). The Hamilton entities are subsidiaries of Nedelco Inc. and are located in Aurora, Nebraska.

Section 2 Status of Service Providers

Hamilton Relay holds a certificate of public convenience (CPC) to provide TRS in Pennsylvania pursuant to a tariff: TRS PA P.U.C. No. 1, at Docket No. A-2014-2447601.

Hamilton Telephone provides CTRS in Pennsylvania under contract with the PA PUC. The contract commenced July 1, 2012, and has been extended to run through June 30, 2019.

Supporting Documentation included in Appendices:

- ORDER *Hamilton Relay*, Pennsylvania PUC Docket No. A-2014-2447601 (order entered December 4, 2014)
- Certificate of Public Convenience Hamilton Relay
- Tariff TRS PA P.U.C. No. 1
- OPENION & ORDER Pennsylvania TRS Relay Annual Surcharge Recalculation, M-2017-2582552
- ORDER Petition of Hamilton Relay (P-2017-2596198) and Hamilton Telecommunications (P-2017-2596108) Waiver of Equal Access & Billing Requirements
- Pennsylvania TRS Advisory Board By-Laws

Section 3 Operational Standards

§ 64.604 Mandatory minimum standards.[3]

(a) Operational standards –

(1) Communications assistant (CA).

(i) TRS providers are responsible for requiring that all CAs be sufficiently trained to effectively meet the specialized communications needs of individuals with hearing and speech disabilities.

(ii) CAs must have competent skills in typing, grammar, spelling, interpretation of typewritten ASL, and familiarity with hearing and speech disability cultures, languages and etiquette. CAs must possess clear and articulate voice communications.

(iii) CAs must provide a typing speed of a minimum of 60 words per minute. Technological aids may be used to reach the required typing speed. Providers must give oral-to-type tests of CA speed.

Recognizing that a high-quality relay Communications Assistant (CA) is critical to providing consumer satisfaction, Hamilton Relay thoroughly trains its relay CAs to meet the specialized communications needs of individuals who are deaf, hard of hearing or have difficulty speaking. All PA TRS CAs possess clear and articulate voice communications. They have competent skills in typing, grammar, spelling, interpretation of typewritten ASL, and familiarity with the various cultures of relay users, languages and etiquette. All PA TRS CAs provide a typing speed of a minimum of 60 words per minute, which is verified through oral-to-type tests.

CAs are trained to relay calls in a manner that meets and often exceeds FCC standards. The following describes how PA TRS's service provider trains its CAs to meet operational proficiency standards stated above. Before hiring, exams are given to each applicant in the following areas to ensure that the candidate has the needed skills to become a fully trained relay CA:

(1) Spelling skills (must achieve at least 90% correct)
(2) Reading skills (must be able to read clearly and distinctly)
(3) Typing proficiency

Additional details about these requirements are as follows:

Spelling Skills
The minimum spelling skill required of PA TRS CA is the ability to quickly and easily spell words that are equivalent to that of a beginning college level conversation. CAs must pass a spelling exam to be

[3] Unless indicated otherwise, all citations are to 47 CFR Chapter 64.

eligible to work as a PA TRS CA and score in at least the 90th percentile. The spelling skills exam is based on a 12th grade spelling level. PA TRS performs similar testing for Spanish language CAs.

English Reading, Speaking, and Writing Skills
CAs must meet all grammar proficiency requirements, including reading, speaking, and writing English at a minimum of a 12th grade level prior to employment. Hamilton Relay also tests for diction, clear and articulate voice communications, and a neutral accent by requiring each prospective CA to complete a reading exam.

Typing Proficiency
CAs must type 60 words per minute (wpm) for five minutes. PA TRS exceeds this service level by requiring CAs to maintain a 95% accuracy level while typing 60 wpm. PA TRS CAs have an average typing speed of 79.6 wpm with 98% accuracy.

Newly hired CAs are required to meet the PA TRS minimum typing proficiency standard on an oral-to-text exam within a three-week period before they may take calls. PA TRS also tests its CAs every four months in a manner simulating actual working conditions to document current proficiency levels. If a CA is unable to meet the 60 wpm requirement, the CA is removed from live relay calls until further training and compliance can be accomplished.

PA TRS also uses a computer based typing program for continuing enhancement of keyboarding, spelling, and grammar skills. This program is available to all CAs.

PA TRS performs test calls to document current proficiency levels of the CAs and to make sure each is making progress over the term of their employment. Conducting typing tests during live relay calls also ensures that CAs are meeting all typing requirements during actual calls.

Culture Training
All PA TRS staff, including management, receive 20 hours of initial training devoted solely to disability issues including ASL gloss, ASL style and grammar, tone of voice, deaf, hard-of-hearing and hearing cultures, etiquette, pertinent information about the needs of people who are deaf or hard-of-hearing, the role of the CA (including training to relay the contents of a call as accurately as possible without intervening in communication), and the operation of relay telecommunications equipment, including answering machines and computerized services. This training is done through videos, seminars with staff who are familiar with the relay communities, observation (both simulated and on live calls), and a variety of role-play scenarios. CAs are well trained to effectively meet the specialized needs of relay users. In addition to basic training during new hire training, Hamilton Relay provides an additional 12 hours of specialized/cultural training annually.

Spanish language relay CAs must complete the same training and testing as English language relay CAs and must pass tests confirming proficiency in the Spanish language.

Proficiency Examinations
PA TRS CAs begin relaying calls at the end of the three-week training period, assuming all examinations have been passed and proficiency skills have been shown. In addition to these exams and

skill tests, CAs must successfully complete several relay call scenarios to demonstrate proficiency in simulated scenarios. PA TRS's service provider can then determine that a CA is meeting and exceeding all minimum FCC proficiency requirements. Tests are kept confidential, and portions of the tests are changed routinely. CAs are tested on a variety of topics monthly to ensure that they continue to meet all requirements. Individuals who do not pass any portion of the Proficiency Tests are retested and/or will undergo a retraining process.

CA Performance Monitoring to Ensure Each CA Continues to Meet All Requirements
Hamilton Relay's advanced relay platform includes a unique remote call monitoring system to continually monitor call performance. Such items as proficiency and professionalism, procedures, language, voice quality, decorum, and professional knowledge and skills are evaluated daily. Each CA is monitored monthly by a relay Supervisor and the Monitoring Supervisor. A minimum of two evaluations are completed each month: one formal call evaluation in which the call is observed from start to finish and one informal evaluation.

Additionally, informal spot checking occurs throughout the month to ensure that CAs are performing properly on every call. Spot checks are performed throughout the month by relay Supervisors, the Monitoring Supervisor and the Lead CAs. A call is observed, and the CA is scored based on the information that was collected during the session. Informal Monitors are used primarily as a coaching tool to provide real time coaching.

Through the call monitoring process, any CA not in compliance with quality standards is taken off duty for further training and re-testing. These CAs are returned to live calls on probation and monitored frequently to ensure continued improvement.

> *(v) CAs answering and placing a TTY-based TRS or VRS[4] call shall stay with the call for a minimum of ten minutes. CAs answering and placing an STS call shall stay with the call for a minimum of twenty minutes. The minimum time period shall begin to run when the CA reaches the called party. The obligation of the CA to stay with the call shall terminate upon the earlier of:*
>
> > *(A) The termination of the call by one of the parties to the call; or*
> >
> > *(B) The completion of the minimum time period.*

Change of a CA
PA TRS, as a matter of practice, does not substitute agents in the middle of calls to accommodate breaks, quitting times, etc. PA TRS exceeds the FCC standard for substitution of CAs for all forms of TRS which requires that the CA shall stay with a relay call for a minimum of ten minutes.

PA TRS only substitutes a CA if the following should occur:

- If a caller requests a CA of another gender. When this occurs, that gender request is retained for the user throughout the relay call;

[4] Video Relay Service (VRS) is not a component of PA Relay.

- The call requires a specialist (Spanish language, STS, etc.);
- A perceived conflict of interest exists;
- Another major emergency exists; or
- If a call goes a half hour after a scheduled lunch break or end of a shift **and** the CA requests a switch. The CA is not automatically switched out at these times.

Before a call is switched, a supervisor must approve it based on the criteria listed above and will monitor the change. The new CA then takes over the call at the same workstation (using the same gender, if gender was requested) so that the relay user's call is not interrupted (except to identify the new CA to both parties). To further minimize the disruption of the call flow, the switch does not occur until either the calling or called party has completed their part of the conversation (typed or stated "Go Ahead" or "GA").

Change of a STS CA
PA TRS has a 30-minute requirement prior to changing STS CAs. This exceeds the FCC's 20-minute requirement prior to changing STS CAs. The wait period begins after connecting to the called party. A supervisor must approve and facilitate a STS CA change. If a change of the STS CA is necessary, another STS CA replaces the STS CA relaying the call at the same workstation so that the relay user's call is not interrupted except to identify the new STS CA to both parties.

> *(vi) TRS providers must make best efforts to accommodate a TRS user's requested CA gender when a call is initiated and, if a transfer occurs, at the time the call is transferred to another CA.*

CA Gender Requests
CAs, when requested, will switch a call to another CA who is of the gender requested by the caller and retain that gender for the user throughout the relay call. Hamilton Relay has the technical capability to automatically route calls to CAs of the preferred gender, if available, based on customer profile selection.

> *(vii) TRS shall transmit conversations between TTY and voice callers in real time.*

Real Time
PA TRS transmits conversations between relay and voice callers in real time.

> *(viii) STS providers shall offer STS users the option to have their voices muted so that the other party to the call will hear only the CA and will not hear the STS user's voice.*

Muting STS
The PA TRS customer profile contains an option titled "Open Line/Mute Transmission of STS User," which allows the STS consumer to communicate with the STS CA privately without the voice user hearing the conversation. This feature is also available on a per-call basis.

(2) Confidentiality and conversation content.

(i) Except as authorized by section 705 of the Communications Act, 47 U.S.C. 605, CAs are prohibited from disclosing the content of any relayed conversation regardless of content, and with a limited exception for STS CAs, from keeping records of the content of any conversation beyond the duration of a call, even if to do so would be inconsistent with state or local law. STS CAs may retain information from a particular call in order to facilitate the completion of consecutive calls, at the request of the user. The caller may request the STS CA to retain such information, or the CA may ask the caller if he wants the CA to repeat the same information during subsequent calls. The CA may retain the information only for as long as it takes to complete the subsequent calls.

(ii) CAs are prohibited from intentionally altering a relayed conversation and, to the extent that it is not inconsistent with federal, state or local law regarding use of telephone company facilities for illegal purposes, must relay all conversation verbatim unless the relay user specifically requests summarization, or if the user requests interpretation of an ASL call. An STS CA may facilitate the call of an STS user with a speech disability so long as the CA does not interfere with the independence of the user, the user maintains control of the conversation, and the user does not object. Appropriate measures must be taken by relay providers to ensure that confidentiality of VRS users is maintained.

Confidentiality

PA TRS CAs are instructed not to disclose the content of any relayed conversation regardless of content, and to refrain from keeping records of the content of any conversation beyond the duration of a call, even if to do so would be inconsistent with state or local law. CAs are instructed not to intentionally alter a relayed conversation. To the extent that it is not inconsistent with federal, state, or local law regarding use of telephone company facilities for illegal purposes, CAs are instructed to relay all conversation verbatim unless the relay user specifically requests summarization or if the user requests interpretation of a call. PA TRS employs various methods to ensure that all relay users' confidentiality is maintained, including the restriction of access to its call centers and the partitioning of CAs into individual cubicles to ensure relay call privacy. All PA TRS service provider employees must sign a confidentiality agreement committing to keep all information confidential.

All STS CAs have the authority, at the request of the STS user, to retain information beyond the duration of a call in order to facilitate the completion of consecutive calls. This information is retained only for the duration of the inbound call. STS CAs retain any important information given by the STS user which might be difficult for the STS relay user to repeat (*i.e.*, credit card numbers, telephone numbers, account numbers, etc.) for use in a subsequent outbound call. PA TRS places a great emphasis on maintaining the confidentiality of relay users. As a result, all information is destroyed immediately upon termination of the inbound call. The above meets all FCC requirements for STS call processing.

All information about users is treated confidentially and will not be sold, distributed, shared, or divulged by Hamilton Relay or any of its employees unless divulging such information is compelled by lawful order.

(3) Types of calls.

(i) Consistent with the obligations of telecommunications carrier operators, CAs are prohibited from refusing single or sequential calls or limiting the length of calls utilizing relay services.

No Restrictions

PA TRS does not and will not place any restrictions on the length or number of single or sequential calls placed by customers through the relay center. PA TRS will continue to manage its traffic loads in a manner that will not require that customers be asked to call back later.

(ii) Relay services shall be capable of handling any type of call normally provided by telecommunications carriers unless the [FCC] determines that it is not technologically feasible to do so. Relay service providers have the burden of proving the infeasibility of handling any type of call. Providers of TRS need not provide the same billing options (e.g., sent-paid long distance, operator-assisted, collect, and third party billing) traditionally offered for wireline voice services if they allow for long distance calls to be placed using calling cards or credit cards or do not assess charges for long distance calling. Providers of TRS need not allow for long distance calls to be placed using calling cards or credit cards if they do not assess charges for long distance calling.

(iii) Relay service providers are permitted to decline to complete a call because credit authorization is denied.

Long Distance Calling Waivers

On August 24, 2016, the FCC granted temporary waivers regarding:

- [T]he equal access requirement as applied to traditional TRS, STS, and CTRS, provided that they do not assess separate charges on TRS users for long distance service. This temporary waiver will expire two years from the date of this Order, or on the effective date of [an FCC] rulemaking or other decision as to the continuing application of the equal access requirement to traditional TRS, STS, and CTRS, whichever is earlier.
- [T]he billing options requirement as applied to traditional TRS, STS and CTRS, provided that they do not assess separate charges on users of these services for long distance calls. In other words, petitioners need not provide the same billing options (*e.g.*, sent-paid long distance, operator-assisted, collect, and third party billing) traditionally offered for wireline voice services if they do not assess charges for long distance calling. This temporary waiver will expire two years from the date of this Order, or on the effective date of [an FCC] rulemaking or other decision as to the continuing application of the billing options requirement to traditional TRS, STS, and CTRS, whichever is earlier.
  . . . Sprint and Hamilton must continue to handle and complete TRS calls from inmates of correctional facilities.
- Permissibility of Free Long Distance Calling: Given the widespread bundling of long distance with local calling, we find no basis to conclude that, in today's environment,

offering free long distance calling to TRS users would provide an impermissible incentive for them to make long distance calls.

In the Matter of TRS and STS Services; Hamilton Relay, Inc., and Sprint Corp.; Petitioners for Interim Waiver of 47 C.F.R. §§ 64.604(b)(3) and 64.604(a)(3)(ii), CG Docket No. 03-123, (DA 16-963) 31 FCC Rcd 9511 (2016).

PA's relay service providers provide long distance service to TRS and CTRS users at no cost to the users. However, because relay is not involved in long distance for two-line CTRS calls, CTRS users may be billed by their long-distance providers for the voice portion of the call.

There are only five call types in which Pennsylvania's relay service providers may require a billing method from TRS and CTRS users:

1. calls from inmates at correctional facilities
2. calls placed from payphones (does not apply to CTRS)[5]
3. calls placed to and from international locations
4. calls placed to Directory Assistance
5. calls placed to pay per call services (e.g., 900 numbers)

PA's relay service providers use several methods to ensure proper billing of these types of calls, which may include collect calling and calling card payment methods. For international calls, TRS and CTRS users may also be able to use interexchange carrier for direct billing (bill to ANI).

Calls that require billing to the end user are recorded and billed by the relay users' carrier of choice. On each call requiring a billing method, the relay service provider forwards the appropriate information digits, calling number and called number call as part of the call information so that the carrier of choice can bill the customer directly or through their normal billing mechanisms.

PA's relay service providers forward information to the IXC at the time the relay call actually takes place. The record contains: the originating and terminating numbers and the call type (*e.g.*, collect). Billing records are created by the interexchange carrier as a result of the information digits and calling and called number data being sent to the interexchange carrier at the time the call is made. Call charges are based on the originating and terminating numbers. The location of the relay center does not affect billing. The IXC bills based on conversation time using their own rounding calculations. PA's relay service providers do not pass on session time to the carrier so only conversation time is billed. Billing and collection is then the responsibility of the interexchange carrier who carries the call.

The format of the bill for calls is determined by the carrier as PA's service providers do not bill any relay calls. However, the call digit information identifies the call as a relay call and further designates the type of call (*e.g.*, collect). This allows the carrier to correctly identify each relay call for billing purposes.

[5] This exception is not applicable to CTRS as CTRS calls cannot be originated from payphones.

If a long-distance provider declines to complete a call because credit authorization is denied, the CA will relay the message verbatim to the relay user and ask if he/she wish to make another call.

Payphone and Coin Sent Paid Calls

PA relay is capable of handling any call normally provided by common carriers with the exception of coin sent paid calls, which the FCC has determined cannot be processed through relay due to a lack of existing technology.[6] PA TRS does not charge relay users who want to place a local call from a payphone as stated in the current FCC coin-sent paid order. CTRS calls cannot originate from payphones due to technology constraints.

Relay users making a long-distance call from a payphone may use a calling card (debit card, regular calling card, etc.) or place a collect call. The customer's carrier of choice will then rate and bill any long-distance payphone calls. PA relay will continue to offer collect calling as a billing option as long as this service is available through carriers.

Once billing has been established, the call will be processed as a regular relay call. In this manner, all relay users have access to anyone from a payphone.

Cellular/Wireless/Personal Communications Service (PCS) Phone Access

Hamilton is capable of processing relay calls that involve pagers, cellular, and personal communications services. These services are all part of the Public Switched Network, and they are handled like any other relay call.

Workstations have built-in Dual Tone Multi Frequency (DTMF) generating capabilities to perform dialing or access functions for relay users. The DTMF software sends tones that activate automated voice systems and pagers. DTMF capability allows navigation of voice menus, answering machines, or other automated systems that either record or passes on voice, text, or electronic message to the other party even when using a wireless device.

There are occasions when a wireless switch sends false ANI information on wireless calls. When this occurs, the call is processed as "no bill."

Directory Assistance

Relay users have access to directory assistance in the same manner as any other relay requests. When reaching the directory assistance operator, the CA identifies herself/himself and asks for the city and state the user has given while at the same time keeping the relay user informed. When the correct number has been obtained, the call is handled as a regular relay call.

Relay users can pick which carrier to use for directory assistance. PA TRS will continue to offer Directory Assistance provided this service is available through carriers. If Directory Assistance is not

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[6] Calls made from payphones in Pennsylvania are in accordance with the FCC's "Alternative Plan" at CC Docket No. 90571. The PA PUC is requesting a continuing exemption, until technology will allow such call provisioning, from the requirement that the PA TRS and/or PA CTRS handle coin sent-paid calls.

available through traditional carriers, Hamilton has secured arrangements with National Directory Assistance (NDA) to provide this service to relay users nationwide.

Network Access
Relay users can place calls from within Pennsylvania to any point in the world and from all points outside Pennsylvania to any point within Pennsylvania. This includes access to local, intrastate (including intraLATA and interLATA), interstate, and international call types.

Access to Regionally Directed Toll-Free Numbers
Relay users can access regionally directed toll-free numbers. Because PA relay passes true Caller ID information, the caller's ANI reflects a Pennsylvania number which results in the call being routed to the correct state or regional location.

Access to Restricted Toll Free Numbers
PA relay users can access restricted 800 numbers and other special prefixes through a LEC via re-originating dial tone. Hamilton ensures that all the relay users in Pennsylvania have access to all 800 numbers and other special prefixes.

Inbound International Calls
PA relay provides inbound international calling in which the relay user pays to place a call from an International location to the relay center. PA relay then places the outbound call to a destination in the United States free of charge and relays the conversation for the caller. All processed International calls are billed to the Interstate TRS Fund Administrator.

> *(iv) Relay services other than Internet-based TRS shall be capable of handling pay-per-call calls.*

Pay-Per-Call Services
PA relay provides relay users access to intrastate and interstate 900 pay-per-call services in which the company providing the service bills the end-user directly. On all 900 numbers, CAs inform the relay user the dollar amount per minute associated with the call and ask the relay users if they want to continue the call. This is the point at which callers can disconnect without being charged. Customers who do not want pay-per-call made from their telephone line through relay can complete a customer profile and restrict (*i.e.*, block) pay-per-call relay calls from that particular telephone line.

> *(v) TRS providers are required to provide the following types of TRS calls: (1) Text-to-voice and voice-to-text; (2) one-line VCO, two-line VCO, VCO-to-TTY, and VCO-to-VCO; (3) one-line HCO, two-line HCO, HCO-to-TTY, HCO-to-HCO. VRS providers are not required to provide text-to-voice and voice-to-text functionality. IP Relay providers are not required to provide one-line VCO and one-line HCO. IP Relay providers and VRS providers are not required to provide (1) VCO-to-TTY and VCO-to-VCO; (2) HCO-to-TTY and HCO-to-HCO. Captioned telephone service providers and IP CTRS providers are not required to provide (1) text-to-voice functionality; (2) one-line HCO, two-line HCO, and HCO-to-TTY, HCO-to-HCO. IP CTRS providers are not required to provide one-line VCO.*

TTY/ASCII-to-Voice
PA TRS can accept a call from a TTY equipped caller, place a call to a hearing and voice capable caller, and translate the voice messages to TTY messages and TTY messages to voice messages.

Voice Call Processing
PA TRS can accept a call from a hearing and voice capable caller, place a call to a text based caller, and translate the voice messages to TTY messages and TTY messages to voice messages.

Voice Carryover (VCO)
VCO users can use either TTY mode, *i.e.*, acoustic mode and direct connect mode. A variety of VCO call types are also available through PA TRS.

Two-Line VCO & Reverse Two-Line VCO
Two-line VCO capability allows VCO users to have a more interactive conversation. By using two telephone lines callers, if they have some hearing available, can listen to their conversation on one line while receiving typed text from a CA on the other line, thus creating a more natural flow of conversation. To place a two-line VCO call, the ASCII/TTY user calls PA TRS, connects with a CA, and requests that the CA make a call to the user's voice (second) line. The relay user must have two telephone lines and 3-way calling. Once connected in voice, the customer conferences in the third party (the called party). The CA only types what the third party says. The CA is virtually invisible to the voice customer, allowing for a two-way uninterrupted conversation to take place. Two-line VCO works in the reverse when a voice user places a call to a two-line VCO user through relay.

VCO-to-TTY and TTY-to-VCO
VCO users can call a TTY user (or vice versa) through the relay. VCO users voice their conversations which the CAs type to the TTY users. TTY users type their conversation directly to VCO users.

VCO-to-VCO
PA TRS provides VCO-to-VCO service where the CAs type to both parties, saving VCO users from having to type their parts of the conversation.

Hearing Carryover (HCO)
HCO users can use either TTY mode, *i.e.*, acoustic mode and direct connect mode. A variety of HCO call types are also available through PA TRS.

Two-Line HCO
To place a two-line HCO call, ASCII/TTY users call relay, connect with a CA, and request that the CA make a call to their voice (second) line. The relay user must have two telephone lines and 3-way calling. Once connected in voice, the relay user conferences in the third party (the called party) via the voice line. The CA only voices what the HCO user types. The CA is virtually invisible to the voice customer, allowing for a two-way uninterrupted conversation to take place.

HCO-to-TTY and TTY-to-HCO
HCO users can contact TTY users (or vice versa) via the relay.

HCO-to-HCO
PA TRS provides HCO-to-HCO service where the CA voices to both parties, eliminating the need for HCO users to have to read the other party's conversation.

> *(vi) TRS providers are required to provide the following features: (1) Call release functionality; (2) speed dialing functionality; and (3) three-way calling functionality.*

Call Release
PA TRS processes TTY-to-TTY calls when it is necessary to go through a voice switchboard first or if the originating TTY user is using a calling card that is accessed by calling an 800 number first. Once the CA reaches a compatible TTY user when placing a relay call, PA TRS gives the calling party the option to communicate independent of the relay function. The CA receives an automated message box with instructions to release the call from the workstation. Once the call has been released from the workstation, the CA can take any other incoming calls. Using the above procedure, PA TRS provides a true call release function to satisfy the FCC requirement, which removes the workstation from the call.

Speed Dialing
Relay users may choose up to 50 numbers they would like programmed for speed dial. When PA relay users make a call to a number on their speed dial list, they first connect to the CA and tell the CA, *e.g.*, "pls call Mom." Speed dialing is available through the PA relay customer profile.

Three-Way Calling
PA TRS provides three-way calling capability, in which customers who have purchased this feature from their LEC can use this feature to either tie a third party directly into the conversation or to tie a third party in by making a second call to the relay center.

> *(vii) Voice mail and interactive menus. CAs must alert the TRS user to the presence of a recorded message and interactive menu through a hot key on the CA's terminal. The hot key will send text from the CA to the consumer's TTY indicating that a recording or interactive menu has been encountered. Relay providers shall electronically capture recorded messages and retain them for the length of the call. Relay providers may not impose any charges for additional calls, which must be made by the relay user in order to complete calls involving recorded or interactive messages.*

Machine Recording Capabilities
CAs can record a voice announcement and then play back the message at a speed controlled by the CA. The CA informs the relay user by using a hot key on the CA's terminal that a recording has been reached, followed by another hot key advising "CA HERE WOULD YOU LIKE COMPLETE MSG TYPED OR HOLD FOR A DEPT OR LIVE PERSON Q." If a caller requests a department or live person, the CA types "HLDING FOR DEPT/PERSON" and presses the appropriate option when the recording prompts. If a caller requests listening to the complete message, the CA sends a hot key message stating "COLLECTING INFO PLS HLD," and the CA continues to collect the recording. The message is retained only for the length of the call. This prevents the caller from having to call back

several times to get the entire message. Once the originator of the call disconnects, the recording is automatically deleted from the system.

> *(viii) TRS providers shall provide, as TRS features, answering machine and voice mail retrieval.*

Answering Machine and Voice Mail Retrieval
CAs are trained in retrieving and relaying TTY messages to voice users and voice messages to TTY users from voice processing systems. CAs use the following procedures to obtain messages for relay users:

1. The user is informed that the CA has reached a voice processing system.
2. If the user requests message retrieval, the CA obtains the appropriate access codes from the user. The CA does not retain access codes or any other information needed to access a voice mail system subsequent to the call. This information is considered "call" information and is kept confidential.
3. After a voice processing system has been accessed, CAs begin to relay any messages that have been recorded or leave a message as requested.

CAs alert relay users to the presence of a recorded message and/or interactive menu and uses hot keys (automatic macros) to announce recordings or interactive messages.

Answering Machine Retrieval (Single-Line)
Messages from a voice or TTY answering machine or a single-line telephone are retrieved by the CA. The caller requests Automatic Message Retrieval (AMR) or Single Line Answering Machine (SLAM) and plays the messages to the CA by putting the handset near the speaker of the answering machine. PA TRS records any messages, enabling the CA to capture the information and type or voice it back to the relay customer. Once the information is relayed to the caller and the call is completed, the recording is automatically erased when the caller disconnects.

> *(4) Emergency call handling requirements for TTY-based TRS providers. TTY-based TRS providers must use a system for incoming emergency calls that, at a minimum, automatically and immediately transfers the caller to an appropriate Public Safety Answering Point (PSAP). An appropriate PSAP is either a PSAP that the caller would have reached if he had dialed 911 directly, or a PSAP that is capable of enabling the dispatch of emergency services to the caller in an expeditious manner.*

Procedure for Handling Emergency Calls via TRS
PA TRS uses Bandwidth, a national provider of emergency calling telephony services, for processing emergency relay calls. PA TRS's emergency call procedures are as follows:

- If the caller has the local emergency number which needs to be accessed, the call is promptly placed and handled in the same manner as any other relay call.
- If a caller asks the CA to call 911, the CA connects with Bandwidth, which is accomplished with a stroke on the keyboard.

- This triggers an automated database dip and routes the call to the appropriate PSAP.
- The CA processes the call in the same manner as any other relay call.

Back-up Emergency Procedures
If Bandwidth is unable to match the caller with the appropriate PSAP, PA TRS has procedures in place to access its own emergency database:

- The relay software takes the NPA/NXX information from the ANI of an incoming call and matches it to information in its internal database. The ANI indicates what city or location a call is coming from. This NPA/NXX information is then cross-referenced to a list of locations within Pennsylvania stored in the database, which in turn is mapped to an appropriate PSAP. Once this search is complete (it only takes a second), the correct emergency telephone number is loaded automatically into the "outdial" box, and the CA can immediately dial the appropriate emergency personnel.
- The caller's telephone number is passed to the PSAP when a caller disconnects before being connected to emergency services.
- If the caller is using a cellular or wireless phone, the ANI is not a good indication of where the caller is calling from. In this case, the CA asks for the nearest city name and initiates an automated search for the appropriate PSAP. If several PSAPs are listed for the same city, the CA will try to identify the correct one with a quick question to the caller.

The emergency database application described above meets the current requirements established by the FCC. In its June 2004 Order, the FCC adopted the definition of "appropriate" PSAP as "either a PSAP that the caller would have reached if he had dialed 911 directly, or a PSAP that is capable of enabling the dispatch of emergency services to the caller in an expeditious manner." This process automatically and immediately transfers the caller to an appropriate PSAP based on NPA/NXX information, meeting FCC requirements.

TTY to TTY Communications Between PSAP and Caller
PA TRS will process direct TTY to TTY communications between the PSAP and the TTY caller.

If a Caller Disconnects Before Being Connected to the PSAP
If a caller disconnects before being connected to the PSAP, the advanced relay technology initiates a software command to write a record of the ANI calling for emergency assistance. The supervisor can then access this information if needed, so no matter when the caller hangs up, the PA relay providers can send the correct ANI information to the 911 center and give the dispatcher any pertinent information collected on the call. This allows a PSAP to follow its regular procedures, which is to call back the person calling for help.

While it is never the intent that relay service be a substitute 911 center, PA's relay service providers will never turn away an emergency call and will take reasonable steps to get the call placed and summon necessary help. During such calls, the CA continually attempts to collect as much information as possible about the nature of the emergency so that if the caller cannot complete the call for any reason, the CA may have an opportunity to seek out the appropriate emergency assistance.

Emergency Numbers
PA relay encourages all relay users to call 911 direct. Relay users, however, can add local emergency numbers to their speed dialing lists on their Customer Profile. This feature can save valuable time when time is of the essence. A relay user could simply type "call Fire" or "call 911," and the CA will automatically connect the caller to an appropriate PSAP.

Emergency Calls Education
Through its outreach programs and educational materials, PA relay educates relay users about how to use 911 services, encouraging them to call 911 direct. PA TRS also encourages relays users to contact their local emergency service personnel using a TTY to ensure that the 911 center will process a TTY call correctly if there ever were an actual emergency. Outreach Coordinators routinely give presentations to 911 centers, providing training to emergency dispatchers on how to handle TTY or relay calls correctly.

> *(5) STS called numbers. Relay providers must offer STS users the option to maintain at the relay center a list of names and telephone numbers which the STS user calls. When the STS user requests one of these names, the CA must repeat the name and state the telephone number to the STS user. This information must be transferred to any new STS provider.*

STS Profiles
PA TRS provides STS users the same profile options and features that are currently available to other relay users. All relay users, including STS users, can maintain a list of names and telephone numbers. A relay user gives the name of the person to call to the CA, and the CA repeats the name and states the number of the person to call. The Speed Dial feature is available for STS users.

New STS Providers
Customer profile data in usable format is passed on to a new provider.

Section 4 Technical Standards

§ 64.604 Mandatory minimum standards.

(b) Technical standards –

(1) ASCII and Baudot. TTY-based relay service shall be capable of communicating with ASCII and Baudot format, at any speed generally in use. Other forms of TRS are not subject to this requirement.

The PA TRS service provider can receive and transmit in Voice, Turbo Code, ASCII (at the correct Baud rate) or Baudot formats, and the modems can auto-detect the difference between ASCII and Baudot signals within the same modem so that each call is connected correctly.

(2) Speed of answer.

(i) TRS providers shall ensure adequate TRS facility staffing to provide callers with efficient access under projected calling volumes, so that the probability of a busy response due to CA unavailability shall be functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network.

(ii) TRS facilities shall, except during network failure, answer 85% of all calls within 10 seconds by any method which results in the caller's call immediately being placed, not put in a queue or on hold. The ten seconds begins at the time the call is delivered to the TRS facility's network. A TRS facility shall ensure that adequate network facilities shall be used in conjunction with TRS so that under projected calling volume the probability of a busy response due to loop trunk congestion shall be functionally equivalent to what a voice caller would experience in attempting to reach a party through the voice telephone network.

(A) The call is considered delivered when the TRS facility's equipment accepts the call from the local exchange carrier (LEC) and the public switched network actually delivers the call to the TRS facility.

(B) Abandoned calls shall be included in the speed-of-answer calculation.

(C) A TRS provider's compliance with this rule shall be measured on a daily basis.

(D) The system shall be designed to a P.01 standard.

(E) A LEC shall provide the call attempt rates and the rates of calls blocked between the LEC and the TRS facility to relay administrators and TRS providers upon request.

Speed of Answer

The PA TRS service provider answers eighty-five percent (85%) of calls within ten (10) seconds from the time the call enters the TRS system during all times of the day by any method which results in the caller's call being immediately placed, not put in a queue or on hold.

The PA TRS service provider begins measuring average answer time from the moment a relay call arrives at its relay switch (*i.e.*, in the TRS center's network). As soon as the equipment accepts the call, call detail records start to capture answer time data. The information reported is taken from Call Detail Records ensuring the accuracy of the data. Each call detail record tracks the amount of time a call waits to be answered. CAs do not answer a call until they are ready to engage the call. Calls in queue or calls receiving the intercept message are not counted as answered. This "queue time" field is analyzed and reported but not billed to the TRS Fund. Abandoned calls are included in the speed of answer calculation.

The PA TRS service provider monitors speed of answer on a real-time basis via a monitoring system that is accessible to management and supervisors. This information is utilized to make CA staffing changes throughout the day. Average Answer time is displayed on the supervisor console. The Supervisor workstation and reader boards in the center indicate if calls are in queue waiting to be answered. The Supervisors are responsible for making sure that when that alert comes up that all available CA resources are logged in to the system and answering calls. Each of these tracking mechanisms allows PA TRS to respond quickly by adding more CAs immediately.

Daily activity reports used for internal management purposes also track answer performance information for future scheduling. In addition, PA TRS uses a variety of other scheduling techniques to ensure that staffing meets traffic demands. The PA Relay provider makes use of historical data, trending, call patterns and combines that with the knowledge of current events (*e.g.*, football games, weather, Mother's Day, etc.) to anticipate staffing needs.

PA TRS has outstanding answer performance. Average answer seconds for the past year were 1.3 with 97% of calls answered in ten seconds or less. PA TRS is designed to a P.01 standard. No more than one call in 100 will receive a busy signal when calling the relay center at the busiest hour.

Blockage is defined as any call that arrives at the relay switch but is not answered due to the customer receiving a busy signal. The switches used are high-speed, stand-alone, non-blocking digital switching matrixes. The system is fully redundant to ensure quality and reliable performance. The system auto-detects any problems and moves to the secondary system immediately if necessary. Another measure taken to prevent blocking is the use of networks that make use of SONET survivability technology. All the networks controlled by PA TRS service provider from the point a relay user picks up the phone in their home or business, through the relay and then back to the other phone being called are redundant. The PA TRS service provider measures, records, and reports its answer performance and blockage rate information to Pennsylvania and abides by the FCC rules.

The transmission circuits used meet or exceed industry interexchange performance standards for circuit loss and noise.

(3) Equal access to interexchange carriers. TRS users shall have access to their chosen interexchange carrier through the TRS, and to all other operator services to the same extent that such access is provided to voice users. This requirement is inapplicable to providers of TRS if they do not assess specific charges for long distance calling.

Equal Access

On August 24, 2016, the FCC granted temporary waivers of the equal access requirement as applied to traditional TRS, STS, and CTRS, provided that they do not assess separate charges on TRS users for long distance service. This temporary waiver will expire August 24, 2018, or on the effective date of an FCC rulemaking or other decision as to the continuing application of the equal access requirement to traditional TRS, STS, and CTRS, whichever is earlier. CG Docket No. 03-123.

PA relay provides long distance service to TRS, STS, and CTRS users at no cost to the users. Because relay is not involved in long distance for two- line CTRS calls, CTRS users may be billed by their long distance providers for the voice portion of the call.

There are only five call types in which Pennsylvania's service provider may require a billing method from TRS, STS, and CTRS users:

1. calls from inmates at correctional facilities
2. calls placed from payphones (does not apply to CTRS)
3. calls placed to and from international locations
4. calls placed to Directory Assistance
5. calls placed to pay per call services (*e.g.*, 900 numbers)

To ensure proper billing of these types of calls, several methods are used including collect calling and calling card payment methods. For international calls, TRS, STS, and CTRS users may also use an interexchange carrier for direct billing (bill to ANI).

(4) TRS facilities.

(i) TRS shall operate every day, 24 hours a day. Relay services that are not mandated by [the FCC] need not be provided every day, 24 hours a day, except VRS.

(ii) TRS shall have redundancy features functionally equivalent to the equipment in normal central offices, including uninterruptible power for emergency use.

TRS Facilities

PA relay provides telecommunications relay service 24 hours a day, 7 days a week. The facilities used by PA TRS's service provider have the needed redundancy in switching mechanisms and telecommunication facilities to ensure operation 24 hours a day. PA TRS is operated from a combination of relay centers located in Nebraska, Louisiana, Maryland, Massachusetts and Georgia. STS calls are processed from the Maryland and Louisiana centers.

Location of TRS Switches and Relay Platforms

- Relay switches and platforms are located in the Louisiana and the Nebraska relay centers. Workstation equipment, database information, and CAs are located in all relay centers.
- All incoming calls are primarily controlled by an Automatic Call Distributor (ACD) and switch equipment located in Nebraska via redundant T-1 circuits.
- For redundancy purposes, all centers can also operate off the ACD and switch equipment located in Louisiana, via redundant T-1 circuits.
- All incoming relay calls enter our relay network. Calls are then connected to workstations in any TRS facility. This all happens instantaneously with no call delays. Calls made to the terminating party exit through the call network as well.

This ensures continuous operation of PA TRS.

Uninterruptible Power

All relay centers used by PA relay make use of an uninterruptible power supply (UPS) which supports all relay technology and operations during a loss of power through the combination of battery and generator back-up. This allows PA relay to continue uninterrupted relay service during short or long-term power outages.

The power system supports the switch system and its peripherals, switch room environment (*e.g.*, air conditioning/heating, fire suppression system, emergency lights, and system alarms), CA consoles/terminals, CA work-site and lighting, and Call Detail Record recording at each center. Employees have procedures to follow in the event of emergency.

Switching System

The relay switch is a programmable, high-speed, stand-alone, non-blocking, digital switching matrix that supports a wide range of digital telephony services. Its open, modular architecture and programmable interfaces allow for simplified and cost-effective application development. The switch supports up to 2,048 ports in a single high-density system. Its components include a matrix CPU, network interface cards, Digital Signal Processing service cards and SS7 packet engine cards. The switch adapts to standard network and line interfaces, including T1, E1, J1, and ISDN PRI.

The InterCall Switch Operating System (ISOS) used to provide PA relay was developed in response to the need to quickly develop applications on the programmable switching platforms. The ISOS can simply be loaded on a UNIX host and plugged into the switch to offer basic tandem type switching capabilities including routing and call detail records. The ISOS is a fully operational basic switch and has great flexibility.

The relay workstation application takes advantage of the power and flexibility of the ISOS operating system. It provides a high level of CA control processing with complete flexibility to connect any type of call protocol to any other type of call protocol. A database maintains a preference of each caller to speed up call connections and to provide information for tailored call processing.

The host controller is housed in a redundant server environment and will automatically failover to prevent dropped calls in the event of technical failure. In addition, redundant and geographically

dispersed host controllers and switches facilitate failover in the event of a disaster recovery situation. An inventory of spare critical components is maintained for the switching system onsite to ensure that required levels of service are met.

The system is fully redundant to insure quality, reliable performance. The system utilizes a standard T1 interface that enables it to be linked to other digital switches. All cards and power supplies within the system are redundant which provides the flexibility to switch from one side of the switch to the other to perform updates or to troubleshoot without interrupting call processing. The system is set up to automatically access the secondary operating system on the switch with no human intervention. The system auto-detects any problems and moves to the secondary system immediately if necessary.

If one switching system cannot be returned to service by transferring control to redundant equipment, the calls are rerouted to another switching system. The switching systems are designed to provide a high level of operational security with two fully redundant processors and power supplies in each switch. The control systems provide online system monitoring and real-time programming capabilities that will not take the system off-line and provides the ability to perform preventative maintenance or repair while the system is online. Remote capabilities are also provided so the system can be remotely monitored, reconfigured, or controlled, as necessary. All of this is provided to insure the required levels of service are always met.

This flexible system architecture connects every workstation to both switching locations so that the workstation can utilize either system if one becomes unreachable. This also provides uninterrupted service during maintenance windows. Network redundancy is delivered with two separate high-speed routes provided by two different carrier groups connecting all centers.

> *(5) Technology. No regulation set forth in this subpart is intended to discourage or impair the development of improved technology that fosters the availability of telecommunications to person with disabilities. TRS facilities are permitted to use SS7 technology or any other type of similar technology to enhance the functional equivalency and quality of TRS. TRS facilities that utilize SS7 technology shall be subject to the Calling Party Telephone Number rules set forth at 47 CFR 64.1600 et seq.*

SS7 Technology

Using flexible software and hardware (*i.e.*, standard carrier switch, common equipment frames, standard T1 interfaces, windows servers, UNIX operating System, etc.) where components can easily be modified to accommodate new technology, the platform used by PA relay is ideal for today's rapidly changing technologically advanced environment. The relay platform used by PA TRS's service provider makes use of SS7 signaling consistent with Section 64.1600, *et seq*.

> *(6) Caller ID. When a TRS facility is able to transmit any calling party identifying information to the public network, the TRS facility must pass through, to the called party, at least one of the following: the number of the TRS facility, 711, or the 10-digit number of the calling party.*

Caller ID

Through the use of SS7 signaling, the relay platforms deliver Caller ID in the same manner that these services are delivered in the public switched network (*i.e.*, PA relay provides true Caller ID service where the actual information of the calling party (not the relay center number) appears on the called party's Caller ID box).

> *(7) STS 711 Calls. An STS provider shall, at a minimum, employ the same means of enabling an STS user to connect to a CA when dialing 711 that the provider uses for all other forms of TRS. When a CA directly answers an incoming 711 call, the CA shall transfer the STS user to an STS CA without requiring the STS user to take any additional steps. When an interactive voice response (IVR) system answers an incoming 711 call, the IVR system shall allow for an STS user to connect directly to an STS CA using the same level of prompts as the IVR system uses for all other forms of TRS.*

STS 711 Calls

PA TRS automatically routes STS users to STS CAs when the caller dials 711. This is available via the customer profile. When a STS user reaches a TRS CA after dialing 711, the TRS CA connects the consumer directly to a STS CA without requiring the user to do anything further. PA TRS does not make use of an IVR to answer incoming calls.

Section 5 Functional Standards

§ 64.604 Mandatory minimum standards.

c) Functional standards —

(1) Consumer complaint logs.

(i) States and interstate providers must maintain a log of consumer complaints including all complaints about TRS in the state, whether filed with the TRS provider or the State, and must retain the log until the next application for certification is granted. The log shall include, at a minimum, the date the complaint was filed, the nature of the complaint, the date of resolution, and an explanation of the resolution.

(ii) Beginning July 1, 2002, states and TRS providers shall submit summaries of logs indicating the number of complaints received for the 12-month period ending May 31 to the [FCC] by July 1 of each year. Summaries of logs submitted to the [FCC] on July 1, 2001 shall indicate the number of complaints received from the date of OMB approval through May 31, 2001.

Complaint Logs

All relay complaints and all other customer service activity are tracked. Consumer complaints alleging a violation of federal minimum standards as it relates to the provisioning of relay service are maintained in a log which is retained for PA PUC until the FCC grants the next application for certification.

Every contact made with the Customer Care Department is documented in a Customer Relations Management (CRM) tool. This includes contacts via the toll-free Customer Care number, the customer inquiry form or on-line feedback form, in writing or in person. All information is kept on file and available to the PA PUC and the FCC. Each database record includes:

- The name and/or address of the customer (if given),
- The date and time received,
- The Communication Assistant identification number,
- The record identification number,
- If a complaint, the nature of the complaint,
- The specific relief or satisfaction sought,
- The result of the investigation,
- The resolution of any complaint,
- The date of the resolution, and
- The Customer Care representative responsible for handling the complaint.

Hamilton and the PA PUC have submitted copies of their complaint logs to the FCC each year as required.

(2) Contact persons. Beginning on June 30, 2000, State TRS Programs, interstate TRS providers, and TRS providers that have state contracts must submit to the [FCC] a contact person and/or office for TRS consumer information and complaints about a certified State TRS Program's provision of intrastate TRS, or, as appropriate, about the TRS provider's service. This submission must include, at a minimum, the following:

(i) The name and address of the office that receives complaints, grievances, inquiries, and suggestions;

(ii) Voice and TTY telephone numbers, fax number, e-mail address, and web address; and

(iii) The physical address to which correspondence should be sent.

Contact Persons

Hamilton Contacts

TRS Center Customer Care – for complaints and grievances regarding PA TRS and PA CTRS
PO Box 285
Aurora, NE 68818
Voice/TTY: 800-974-1253
Fax: 402-694-5110
E-mail: parelay@hamiltonrelay.com

Dixie Ziegler for information and suggestions regarding PA TRS and PA CTRS
Vice President of Relay
Hamilton Relay, Inc.
1006 12th Street
Aurora, NE 68818
Voice/TTY: 402-694-5101
Fax: 402-694-5037
E-mail: dixie.ziegler@hamiltonrelay.com
Website: www.hamiltonrelay.com

PA PUC

If Hamilton Relay and Hamilton Telephone do not resolve issues, persons are directed to contact the PA PUC

Pennsylvania Public Utility Commission
Bureau of Consumer Services – for complaints and grievances
Bureau of Technical Services – for inquiries and suggestions
PO Box 3265
Harrisburg, PA 17105-3265
Toll free: 800-692-7380
Fax 717-783-5659
Website: http://www.puc.pa.gov

Additionally, persons are advised that if there are unresolved issues, they may file complaints with the FCC's Consumer Information Bureau:

> Voice: 888-Call-FCC (voice) or 888-225-5322
> TTY: 888-TELL-FCC (TTY) or 888-735-5322
> http://www.fcc.gov/cgb/complaints.html

> *(3) Public access to information. Carriers, through publication in their directories, periodic billing inserts, placement of TRS instructions in telephone directories, through directory assistance services, and incorporation of TTY numbers in telephone directories, shall assure that callers in their service areas are aware of the availability and use of all forms of TRS. Efforts to educate the public about TRS should extend to all segments of the public, including individuals who are hard of hearing, speech disabled, and senior citizens as well as members of the general population. In addition, each common carrier providing telephone voice transmission services shall conduct, not later than October 1, 2001, ongoing education and outreach programs that publicize the availability of 711 access to TRS in a manner reasonably designed to reach the largest number of consumers possible.*

Community Outreach, Public Relations, Educational Programs, and Marketing Materials

PA relay outreach programs target individuals who are deaf, hard of hearing, late deafened, or deaf-blind or who have difficulty speaking or otherwise using telephone equipment, as well as their family and friends.

PA relay outreach programs also specifically target hearing audiences, *i.e.*, the elderly, businesses and professionals, trade shows, civic organizations, government entities, public school and university students, veterans, equipment distribution programs, 911/E911 and other law enforcement and governmental response centers, and other public and private entities to describe relay and how it works. Hamilton representatives meet with individuals or groups to demonstrate equipment and answer questions. PA relay also uses public relations campaigns to expose relay to a broader audience of people throughout Pennsylvania.

PA relay outreach programs use venues such as presentations, exhibits, demonstrations, etc., with special emphasis aimed at the business community and the hearing sector at large. Outreach programs include demonstration of equipment and distribution of informational materials describing how to use TRS, STS, and CTRS services. In addition to presentations, meetings, and exhibits, PA relay uses flyers, Facebook, videos and informational materials such as brochures, promotional materials, newsletters, display materials, bill inserts, directory pages, and websites to promote PA relay.

Relay outreach activities in 2016 achieved 124,677 potential connections. This broke down into:

- 48 presentations with 812 total attendees,
- 79 exhibits with 122,905 attendees,
- 7 one-on-one visits with 10 total attendees,
- 20 meetings with 439 total attendees,
- 38 networking opportunities with 388 total attendees, and
- 87 field visits with 323 total attendees.

(4) Rates. TRS users shall pay rates no greater than the rates paid for functionally equivalent voice communication services with respect to such factors as the duration of the call, the time of day, and the distance from the point of origination to the point of termination.

Rates

PA relay provides long distance service to relay users at no cost to the users. However, because relay is not involved in the long distance voice portion with two-line CTRS calls, CTRS users may be billed by their long-distance providers for the voice portion of the call. Aspects related to the 2016 FCC waivers and the corresponding PA temporary partial waivers regarding equal access and billing options have been detailed above. There are only five call types in which Pennsylvania's service provider may require a billing method from TRS and CTRS users:

1. calls from inmates at correctional facilities
2. calls placed from payphones (does not apply to CTRS)
3. calls placed to and from international locations
4. calls placed to Directory Assistance
5. calls placed to pay per call services (*e.g.*, 900 numbers)

PA relay users have access to several methods such as collect calling and calling cards to ensure proper billing of these types of calls. For international calls, relay users may also use interexchange carrier for direct billing (bill to ANI).

(5) Jurisdictional separation of costs —

(i) General. Where appropriate, costs of providing TRS shall be separated in accordance with the jurisdictional separation procedures and standards set forth in the [FCC's] regulations adopted pursuant to section 410 of the Communications Act of 1934, as amended.

Separation of Costs

The Hamilton entities bill the Interstate TRS Fund for all interstate minutes of relay in accordance with the requirements of the Interstate TRS Fund and consistent with FCC rulings. All intrastate minutes of use are compensated from the PA TRS Fund.

(ii) Cost recovery. Costs caused by interstate TRS shall be recovered from all subscribers for every interstate service, utilizing a shared-funding cost recovery mechanism. Except as noted in this paragraph, with respect to VRS, costs caused by intrastate TRS shall be recovered from the intrastate jurisdiction. In a state that has a certified program under §64.606, the state agency providing TRS shall, through the state's regulatory agency, permit a common carrier to recover costs incurred in providing TRS by a method consistent with the requirements of this section. Costs caused by the provision of interstate and intrastate VRS shall be recovered from all subscribers for every interstate service, utilizing a shared-funding cost recovery mechanism.

Funding

PA relay service is adequately funded by a monthly surcharge on access lines. The funding mechanism is described in greater detail below.

(6) Complaints —

(i) Referral of complaint. If a complaint to the [FCC] alleges a violation of this subpart with respect to intrastate TRS within a state and certification of the program of such state under §64.606 is in effect, the [FCC] shall refer such complaint to such state expeditiously.

(ii) Intrastate complaints shall be resolved by the state within 180 days after the complaint is first filed with a state entity, regardless of whether it is filed with the state relay administrator, a state PUC, the relay provider, or with any other state entity.

(iii) Jurisdiction of [FCC]. After referring a complaint to a state entity under paragraph (c)(6)(i) of this section, or if a complaint is filed directly with a state entity, the [FCC] shall exercise jurisdiction over such complaint only if:

(A) Final action under such state program has not been taken within:

(1) 180 days after the complaint is filed with such state entity; or

(2) A shorter period as prescribed by the regulations of such state; or

(B) The Commission determines that such state program is no longer qualified for certification under §64.606.

(iv) The [FCC] shall resolve within 180 days after the complaint is filed with the [FCC] any interstate TRS complaint alleging a violation of section 225 of the Act or any complaint involving intrastate relay services in states without a certified program. The [FCC] shall resolve intrastate complaints over which it exercises jurisdiction under paragraph (c)(6)(iii) of this section within 180 days.

(v) Complaint procedures. Complaints against TRS providers for alleged violations of this subpart may be either informal or formal.

(A) Informal complaints —

(1) Form. An informal complaint may be transmitted to the Consumer & Governmental Affairs Bureau by any reasonable means, such as letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, or some other method that would best accommodate a complainant's hearing or speech disability.

(2) Content. An informal complaint shall include the name and address of the complainant; the name and address of the TRS provider against whom the complaint is made; a statement of facts supporting the complainant's allegation that the TRS provided it has violated or is violating section 225 of the Act and/or requirements under the [FCC's] rules; the specific relief or satisfaction sought by the complainant; and the complainant's preferred format or method of response to the complaint by the [FCC]and the defendant TRS provider (such as letter, facsimile transmission, telephone (voice/TRS/TTY), Internet email, or some other method that would best accommodate the complainant's hearing or speech disability).

(3) Service; designation of agents. The [FCC] shall promptly forward any complaint meeting the requirements of this subsection to the TRS provider named in the complaint. Such TRS provider shall be called upon to satisfy or answer the complaint within the time specified by the [FCC]. Every TRS provider shall file with the [FCC]a statement designating an agent or agents whose principal responsibility will be to receive all complaints, inquiries, orders, decisions, and notices and other pronouncements forwarded by the [FCC]. Such designation shall include a name or department designation, business address, telephone number (voice and TTY), facsimile number and, if available, internet e-mail address.

(B) Review and disposition of informal complaints.

(1) Where it appears from the TRS provider's answer, or from other communications with the parties, that an informal complaint has been satisfied, the [FCC]may, in its discretion, consider the matter closed without response to the complainant or defendant. In all other cases, the [FCC] shall inform the parties of its review and disposition of a complaint filed under this subpart. Where practicable, this information shall be transmitted to the complainant and defendant in the manner requested by the complainant (e.g., letter, facsimile transmission, telephone (voice/TRS/TTY) or Internet e-mail.

(2) A complainant unsatisfied with the defendant's response to the informal complaint and the staff's decision to terminate action on the informal complaint may file a formal complaint with the [FCC] pursuant to paragraph (c)(6)(v)(C) of this section.

(C) Formal complaints. A formal complaint shall be in writing, addressed to the [FCC], Enforcement Bureau, Telecommunications Consumer Division, Washington, DC 20554, and shall contain:

(1) The name and address of the complainant,

(2) The name and address of the defendant against whom the complaint is made,

(3) A complete statement of the facts, including supporting data, where available, showing that such defendant did or omitted to do anything in contravention of this subpart, and

(4) The relief sought.

(D) Amended complaints. An amended complaint setting forth transactions, occurrences or events which have happened since the filing of the original complaint and which relate to the original cause of action may be filed with the Commission.

(E) Number of copies. An original and two copies of all pleadings shall be filed.

(F) Service.

(1) Except where a complaint is referred to a state pursuant to §64.604(c)(6)(i), or where a complaint is filed directly with a state entity, the [FCC] will serve on the named party a copy of any complaint or amended complaint filed with it, together with a notice of the filing of the complaint. Such notice shall call upon the defendant to satisfy or answer the complaint in writing within the time specified in said notice of complaint.

(2) All subsequent pleadings and briefs shall be served by the filing party on all other parties to the proceeding in accordance with the requirements of §1.47 of this chapter. Proof of such service shall also be made in accordance with the requirements of said section.

(G) Answers to complaints and amended complaints. Any party upon whom a copy of a complaint or amended complaint is served under this subpart shall serve an answer within the time specified by the [FCC] in its notice of complaint. The answer shall advise the parties and the [FCC] fully and completely of the nature of the defense and shall respond specifically to all material allegations of the complaint. In cases involving allegations of harm, the answer shall indicate what action has been taken or is proposed to be taken to stop the occurrence of such harm. Collateral or immaterial issues shall be avoided in answers and every effort should be made to narrow the issues. Matters alleged as affirmative defenses shall be separately stated and numbered. Any defendant failing to file and serve an answer within the time and in the manner prescribed may be deemed in default.

(H) Replies to answers or amended answers. Within 10 days after service of an answer or an amended answer, a complainant may file and serve a reply which shall be responsive to matters contained in such answer or amended answer and shall not contain new matter. Failure to reply will not be deemed an admission of any allegation contained in such answer or amended answer.

(I) Defective pleadings. Any pleading filed in a complaint proceeding that is not in substantial conformity with the requirements of the applicable rules in this subpart may be dismissed.

Complaints

The PA PUC will resolve all intrastate complaints within 180 days after the complaint is first filed regardless of whether the complaint originates with the PA PUC or the relay service provider. The PA PUC understands that if it does not provide a resolution to a complaint that the FCC may exercise jurisdiction. The PA PUC understands that the FCC will resolve intrastate complaints over which it exercises jurisdiction under paragraph (c)(6)(iii) of this section within 180 days. The PA PUC will assist as necessary in this process. The PA PUC directs its relay service providers to assist as well as may be necessary.

PA relay Customer Care activities, including inquiries, comments, compliments and complaints, are handled by personnel trained on Deaf Culture and the needs of individuals who have difficulty speaking or hearing. PA relay Customer Care Department is available to relay users 24 hours a day, 365 days a year, via a toll-free telephone number which is accessible from anywhere in the U.S. Any caller to the relay center having a complaint can reach a supervisor or customer care representative while still on line. Customers may also contact PA relay via e-mail, through the PA relay web-site,[7] in person, or in writing. PA relay Customer Care department, in communication with Hamilton's Vice President of Relay (who reviews all complaint information), has ultimate responsibility for all inquiries, comments, compliments and complaints. The Customer Care department shares customer care activities with the Relay Center manager who can take whatever action is needed to resolve situations which may arise.

In the event of a customer care contact regarding the PA relay, trained staff follow an established procedure, which varies depending on the gravity and nature of the situation.

- Feedback involving a CA is directed to the CA's supervisor and the Relay Center manager. Positive feedback is shared with the CA. Constructive feedback is shared with the CA and the appropriate coaching, re-training and counseling steps are taken by the primary Supervisor to resolve the situation. Detailed call records show each key command (but not actual text) the CA makes. Hamilton can investigate CA complaints and will take disciplinary action when needed.
- Complaints regarding service/procedure issues are directed to the appropriate internal personnel. Technical issues are given to the technical support staff and are addressed promptly. Procedural issues are discussed at internal quality meetings and appropriate action is initiated.

[7] http://www.puc.state.pa.us/consumer_info/telecommunications/pa_relay_services_.aspx

All complaints are reviewed by the Customer Care manager to ensure that complaints have been resolved to the customer's satisfaction. The Customer Care Team resolves most customer care complaints. If further action is needed, the complaint is escalated to Hamilton's Vice President of Relay Service, and then to the PA PUC when needed. The PA relay Customer Care department strives to respond to all customer inquiries within 24 hours and to resolve all complaints within 72 hours; however, all complaints are to be resolved within 10 calendar days depending on the complexity of the problem. Contact information for customer inquiries is described in appropriate printed outreach material that is distributed to the general public.

If the relay user is not satisfied with the resolution of the complaint by Hamilton or with any action taken, Hamilton's monthly report to the PA PUC will so state. The relay user has the opportunity and is given written notice of that opportunity to have the complaint and action reviewed by the PA PUC for such action as the PA PUC may deem appropriate in accordance with its rules and regulation. The PA PUC will act on such complaint no later than 180 days from the filing of the original complaint.

The PA PUC will process all complaints referred by the FCC for intrastate Pennsylvania relay. The PA PUC will cooperate in the investigation or resolution of any complaints concerning PA relay with the FCC.

Contact information for each level of complaint response is provided above in Sections 1 and 5 of this application.

> *(7) Treatment of TRS customer information. Beginning on July 21, 2000, all future contracts between the TRS administrator and the TRS vendor shall provide for the transfer of TRS customer profile data from the outgoing TRS vendor to the incoming TRS vendor. Such data must be disclosed in usable form at least 60 days prior to the provider's last day of service provision. Such data may not be used for any purpose other than to connect the TRS user with the called parties desired by that TRS user. Such information shall not be sold, distributed, shared or revealed in any other way by the relay center or its employees, unless compelled to do so by lawful order.*

Customer Information

Upon abandonment or termination of any certificated authority or contractual obligation to provide relay service in Pennsylvania, Hamilton is under obligation to transfer the customer profile database to the new PA relay provider. Hamilton will transfer this data in a usable format at least 60 days in advance of its last day of service.

The data gathered from providing relay service is not used for any purpose other than connecting the relay user to a called party. The PA relay service provider has not, and will never make, any relay information available for sale or distribution. Hamilton will not sell, distribute, share, or reveal in any way the information referenced above, unless compelled to do so by lawful order.

Section 6 Captioned Telephone Service

FCC Caption Telephone Relay Service (CTS) and Caption Telephone Relay Service Voice Carry Over (CTS VCO) Regulations and Waivers (Pennsylvania uses the term "CTRS")

The FCC issued a separate ruling specifically for CTS VCO on August 1, 2003: Declaratory Ruling FCC Docket No. 98-67, FCC 03-190. In this Ruling the FCC:

- *Found that CTS VCO service (CTRS is a form of this) is a type of TRS.*
- *Clarified that certain TRS mandatory minimum standards do not apply to CTS VCO service.*
- *Waived other TRS mandatory minimum standards for CTS VCO service*

On July 14, 2005, the FCC clarified that two-line CTS is a type of telecommunications relay service eligible for compensation from the Interstate TRS Fund.

The Declaratory Ruling referenced above serves as the primary source in meeting the existing minimum standards, including waivers of certain TRS requirements for CTS.
The FCC issued an order on August 14, 2006 (CG Docket No. 03-123, DA 06-1627) making these temporary waivers permanent.

PA CTRS
PA CTRS is available 24 hours a day, 7 days a week, 365 days a year in a manner that is functionally equivalent to traditional voice calls. Hamilton Telephone processes a majority of the Pennsylvania intrastate PA CTRS traffic from its own call centers in Nebraska, Louisiana, Maryland, Georgia, Kansas, and Massachusetts, using its own equipment and CAs. Hamilton Telephone licenses the captioning technology of CapTel, Inc. (CTI) of Madison, Wisconsin, and engages CTI as a subcontractor to provide some equipment and some captioning. PA CTRS calls are dynamically routed to the next available CTRS CA in either a Hamilton Telephone CTRS call center or in a CTI call center in Wisconsin (Madison and Milwaukee), Florida (Orlando and Tampa), or Texas.

All PA CTRS users currently use CTI telephones (aka "CapTel" telephones) to provide the visible text. PA CTRS users can select CapTel telephones with either one-line or two-line capability. PA CTRS users place a call in the same way as dialing a traditional phone. As they dial, the special telephone automatically connects to the captioning service. When the other party answers, the PA CTRS user hears everything that is said as well as sees the text of everything that is said.

CTRS Waivers from the FCC
CTRS waivers from the FCC include:

1. STS and Hearing Carryover (HCO);
2. 711 Dialing Access;
3. CA waivers:
   - TRS mandatory minimum standard requiring CAs to be competent in interpretation of typewritten ASL as applied to CTRS CAs,

- CA oral-to-type test requirement and permit the use of an oral-to-text test for CTRS CAs,
- Requirement that CAs not refuse single or sequential calls as applied to CTRS CAs handling outbound captioned telephone calls,
- Gender preference, and
- 60 wpm mandatory typing speed for CAs;

4. Interrupt Functionality;
5. Call Release; and
6. ASCII and Baudot Format.

PA CTRS meets or exceeds all FCC minimum standards consistent with these waivers..

711 via CTRS
PA CTRS allows voice consumers to call a CTRS user by dialing 711 rather than the CTRS 800 number. Voice users can use this on a per-call basis or as an option on the Customer Profile.

Spanish CTRS
Intrastate and Interstate Spanish Language CAs are available to PA CTRS users from 7:00 a.m. to 11:00 p.m. Central Time. To use Spanish Language CTRS, the CTRS user may either call the Spanish CTS toll-free number or select the Spanish option under the menu settings. Once selected, calls automatically route to a Spanish-captioning CA. Voice users dial the Spanish toll-free access number to call a Spanish CTRS user and have the call captioned in the Spanish language.

True Caller ID via CTRS
CTRS users in Pennsylvania are provided with True Caller ID which passes along the 10-digit number of the person calling, consistent with FCC requirements. The actual identity of the calling party is presented to the called party's Caller ID box (True Caller ID). However, if Calling parties block their Caller ID, the called party does not receive any Caller ID information, functionally equivalent to a normal telephone call when Caller ID is blocked. When available, Caller ID information of the called party is shown on the CapTel telephone display screen.

Three-way Calling via CTRS
A standard telephone user initiates a three-way call to a CTRS user by hook-flashing to put the first called other person on hold then dialing the CTRS voice number and giving the CA the CTRS user's telephone number or by dialing the CTRS user direct if the called party is a 2-line CTRS user. All three parties would then be joined by hook flash, and the CTRS user would receive captions on the call.

With 2-line CTRS, the PA CTRS user initiates a three-way call in the same manner that a standard phone user would. The first line works exactly as a regular phone line (able to add another caller), and the second line supports the captions.

Call-Waiting via CTRS
Call-waiting is supported by the 2-line CapTel telephone and by PA CTRS. The PA CTRS user hears (or reads in the captions) a "beep" indicating that a second call is coming in. The CTRS user simply presses the FLASH button on his/her CapTel telephone. The CTRS user's second caller will be on-line,

and the CTRS user will receive captions of the conversation. The CTRS user will still receive captions of the first conversation if/when he/she returns to the first caller by pressing the FLASH button again.

Speed Dialing via CTRS
Speed Dialing, which is built into the CapTel telephone's Dialing Directory, allows CTRS users to quickly dial frequently called phone numbers. To speed dial a number that PA CTRS user has saved in the CapTel telephone's memory, the user simply presses the button next to the Memory Dial/Redial arrow. A list of saved numbers along with the last number dialed is then displayed. The CTRS user then presses the button next to the number he/she wishes to dial again, and the CapTel telephone dials the number automatically.

Costs for Non-Basic Services
No charges are assessed to CTRS users for these local exchange non-basic services beyond what the users pay their LECs for these services.

Using Automated (Touchtone) Systems via CTRS
CTRS users have access to audiotext, interactive voice response units, and answering machines including message retrieval services. They can receive and leave messages on answering machines or voice mail systems with automated menus. The CTRS user can press the CapTel telephone number buttons at any time during a call to make selections. The captioning service continuously transcribes what is heard regardless of what the PA CTRS user is saying or which buttons are pressed.

Leaving Messages on Answering Machines via CTRS
CTRS users may begin leaving a message as soon as they see "BEEP" on the display screen or hear the recorded greeting end the same way they would with a regular phone.

Retrieving Voice Mail Messages via CTRS
To retrieve voice mail, CTRS users call into their voice mail/answering machine system as a remote caller and follow the voice mail/answering machine prompts to retrieve the messages.

Captioning External Answering Machine Messages via CTRS
CTRS users can receive captions of voice messages left on an answering machine that is near the CapTel telephone. CTRS users press the menu button on the CapTel telephone until the "Caption External Answering Machine Messages" is displayed. They then place the CapTel telephone handset mouth piece next to the answering machine speaker and play the answering machine message aloud, following the instructions on the CapTel telephone screen. When finished, hanging up the CapTel telephone handset causes the "Caption External Answering Machine Messages" feature to go off automatically.

CTRS Answer Performance
The PA CTRS provider answers 85% of calls within 10 seconds by any method which results in the caller's call immediately being placed, rather than put in queue or on hold. Adequate staffing is provided to ensure PA CTRS users are provided with an average answer speed of 85% of all calls answered within 10 seconds daily (including during times of increases or spikes in call volume) including abandons. Hamilton Telephone communicates frequently with its subcontractor, CTI, to

project future demand so that standards can be met. Additionally, as an experienced CTRS provider that processes a majority of the intrastate CTRS traffic that it handles, Hamilton Telephone is in a position to further ensure that staffing needs are met to consistently reach a high answer performance.

Along with adequate staffing, Hamilton Telephone and its subcontractor, CTI, provide adequate trunking capacity, CA workstations, and equipment capacity to meet the current FCC standard of 85% of all calls answered within 10 seconds daily. Additionally, they track the number of CapTel telephones that have been distributed to CTRS users. Combining this with an average length of each call allows them to predict the number of CAs and trunks that are needed.

CTRS Service Blockage

Hamilton Telephone ensures compliance with the P.01 customary TRS industry standard for blockage to ensure that no more than one call in 100 will receive a busy signal when calling the Captioning Center at the busiest hour.

CTRS End User Billing

On August 24, 2016, the FCC granted temporary waivers of equal access and billing options requirement as applied to interstate TRS, STS, and CTRS providers, provided that the providers do not assess separate charges on users of these services for long distance calls. In other words, petitioners need not provide the same billing options (*e.g.*, sent-paid long distance, operator-assisted, collect, and third party billing) traditionally offered for wireline voice services if they do not assess charges for long distance calling. This temporary FCC waiver will expire in August 2018 or on the effective date of an FCC rulemaking or other decision as to the continuing application of the billing options requirement to traditional TRS, STS, and CTRS, whichever is earlier. *See* GC Docket No. 03-123.

As noted above, the PA CTRS provider offers long distance service to PA CTRS users at no cost to the users. Because relay is not involved in long distance for 2-line CTRS calls, PA CTRS users may be billed by their long-distance providers for the voice portion of the call.

There are only four call types in which a billing method from PA CTRS users may be required:

1. calls from inmates at correctional facilities
2. calls placed to and from international locations
3. calls placed to Directory Assistance
4. calls placed to pay per call services (*e.g.*, 900 numbers)

PA CTRS users can use methods such as collect calling and calling card payment methods to ensure proper billing of these types of calls. For international calls, PA CTRS users may also use interexchange carrier for direct billing (bill to ANI).

CTRS N11 Dialing Access

Three-digit dialing is available to PA CTRS users. A PA CTRS user dials the N11 code on the CapTel telephone. Based on the CTRS user's incoming ANI, the CTRS platform automatically matches the ANI to the correct N11 10-digit telephone number and places the call for the CTRS user.

CTRS Access to Regionally Restricted Numbers
PA CTRS users have access to regionally restricted 800/888/877 numbers and pay for service numbers including business offices of local telephone companies that have special prefixes to the extent possible using 10-digit translation.

Dialing 911 in an Emergency – Two-Line CTRS
When calling 911 using a 2-line CapTel telephone, one line is routed directly to the appropriate 911 center which receives the CTRS user's ANI information directly from the network in the same way as a non-CTRS call. The second line is routed through the captioning center. This allows the PA CTRS user to receive captions on one line and hear the conversation on the other line.

Dialing 911 in an Emergency – Single-Line CTRS
When calling 911 using a the single-line CapTel telephone, the PA CTRS user's call is automatically routed to the appropriate 911 center because the call was placed from the CTRS user's home line. Calls to 911 from single-line CapTel telephone are **not** routed through the captioning service. This means:

- There are no delays in accessing emergency personnel as calls are directly connected to a 911 call center.
- Emergency 911 Services will know the ANI of the caller and can locate the individual and send appropriate help, based on the location from which the call is placed.
- Emergency 911 calls are **not** captioned in the same manner that regular CTRS calls are.
  - The CTRS user speaks directly into the handset as with any other CTRS call.
  - The 911 dispatcher can hear everything the CTRS user says.
  - The dispatcher can type instructions on a TTY, which will appear on the CapTel telephone display screen.
  - The CTRS user will (or may) not be able to hear the dispatcher and will not have access to a CA.

CTRS CA Initial Training
All CTRS CAs are required to have the requisite experience, expertise, skills, knowledge, and education and are adequately trained to accurately caption in a professional manner the words spoken by the hearing party without intervening in the communication between the parties. The PA CTRS provider and its subcontractor, CTI, have a detailed CA training plan in place to ensure that all standards as applied by the FCC to the provision of CTRS are met by each CTRS CA. At any time if a prospective CA does not demonstrate the ability to achieve the expected standards, the CA may be removed from the training group and employment terminated.

CTRS CA Ongoing Training
CTRS CAs receive ongoing training throughout their employment. This includes:

- Monitoring on each shift. If they are found to need additional training or re-training, they are taken off line and given the necessary training.
- Training on new features and capabilities of the CTRS service platform (whether licensed to Hamilton Telephone for in-house use or provided under subcontract by CTI) including any new or improved voice recognition systems used.
- Monthly testing through the administration of Timing Scripts in a test environment.

In addition, CTRS CAs are periodically monitored while processing live calls. All scores of each CA are maintained in a database. No other information regarding conversations is kept at any time.

CTRS Quality Assurance
The CTRS CA testing program which requires a proficiency level for CTRS CAs of 130 wpm speed of transcription with a 2% or less error rate and 98% accuracy requirement in a testing environment.

Change of CTRS CA
CTRS CAs stay with a CTRS call for a minimum of ten minutes.

The situations in which a CTRS CA may change during a call include:

- More than 10 minutes past scheduled break or lunch time;
- More than 10 minutes past the end of a shift;
- CA is observed having extreme difficulty processing the call; or
- Call has been in progress more than:
  - 30 minutes with difficult call content or speed, or
  - 60 minutes.

The change of CTRS CAs is handled through a supervisor who approves the change, finds an available CA to exchange, and issues the Call Take Over. Just prior to the change in CAs, a message is sent to the CTRS user indicating there will be a change in CAs. This way the CTRS user can choose to stop the standard phone user from talking for a moment until the new CA is fully in place. The change attempts to take place while the CTRS user is speaking so that the least amount of information to caption is lost. After the change, a new message is sent with the new CA number indicating that the CA has been changed.

CTRS CAs Minimum Standards
CTRS CAs adhere to the following minimum standards:

- CTRS CAs are trained to caption the words spoken by the hearing party as accurately as reasonably possible without intervening in the communications.
- The CTRS CA is permitted to provide background noise identification.
- The CTRS CA does not maintain any records of conversation content and keeps the existence and content of all calls confidential.
- The CTRS CA meets the FCC standards for TRS minimum transcription speed.
- The CTRS CA does not limit the length of a call and stays with the call for a minimum of ten minutes when answering and placing a call.
- Personnel handling CTRS calls have the requisite experience, expertise, skills, education, knowledge, and training to perform CTRS in a professional manner.

CTRS Confidentiality Agreement
All employees of the PA CTRS provider must sign a confidentiality agreement committing to keep all information confidential. All PA CTRS CAs adhere to strict policies of confidentiality which comply with all FCC confidentiality requirements. CTRS CAs do not discuss the contents of captioned calls, any caller identifying factors, calling points, or other information about captioned calls other than what

is necessary to train other CAs. CTRS CAs are also prohibited from intentionally altering a relayed conversation.

The only information collected is personal information necessary to provide and bill for the PA CTRS being rendered. Information obtained during a PA CTRS call may be shared with a member of the service provider's management staff who has asked for specific information which may be needed to clarify technical, policy, emergency, or customer service issues. Information about call content is discussed in a private area only.

The PA CTRS call center is isolated to assure confidentiality standards are upheld. Additionally, equipment and structural accommodations of the CTRS CA workspace ensure the confidentiality of PA CTRS users' calls, preventing PA CTRS users on one call from overhearing a CTRS CA processing another call.

All information about CTRS users is treated confidentially and will not be sold, distributed, shared, or divulged by the PA CTRS provider or any of its employees, unless divulging such information is compelled by lawful order.

Hamilton Telephone and CTI CTRS Redundancy/Switching System

CTRS calls are processed from twelve geographically dispersed locations in nine states. This provides a high level of redundancy and assurance to PA CTRS users. The CTRS relay centers in Nebraska, Louisiana, Maryland, Georgia, Kansas, and Massachusetts, are operated by Hamilton Telephone. The CTRS relay centers in Wisconsin, Florida, and Texas are operated by CTI. An inventory of spare critical components is maintained on site to ensure the required levels of service are met.

The CTRS relay centers are equipped with redundant systems for power; utilizing a combination of battery backup, commercial Uninterruptible Power Supplies (UPS), and/or auxiliary generators to supply uninterruptible power to the relay centers for a minimum of 8 hours. Redundant systems for power include ACD/telecom switching equipment, call processing servers, data network servers, and LAN gear. Most equipment failures can be corrected without complete loss of service.

The PA CTRS provider, Hamilton Telephone, and its subcontractor, CTI, have developed a complete plan for dealing with natural and man-made problems including but not limited to terrorism, weather disruptions, and cable line cut accidents. The plan includes escalation procedures to be employed to deal with problems and restore service. The plan is designed to ensure that no aspect of relay service is impaired.

The switching system includes a redundant central processing unit (CPU) on "hot stand-by" to ensure that no calls are dropped due to processor failure. The switching system also includes:

- A full Maintenance and Administrative Terminal with keyboard, screen and printer capabilities,
- On-line monitoring,
- Real time programming capabilities which will not take the system off-line, and
- The ability to perform preventative maintenance without taking the system off-line.

Section 7 Exceeding FCC Minimum Standards

§ 64.606 Internet-based TRS provider and TRS program certification.

(a) Documentation —

> *(1) Certified state program. Any state, through its office of the governor or other delegated executive office empowered to provide TRS, desiring to establish a state program under this section shall submit, not later than October 1, 1992, documentation to the [FCC] addressed to the [FCC], Chief, Consumer & Governmental Affairs Bureau, TRS Certification Program, Washington, DC 20554, and captioned "TRS State Certification Application." All documentation shall be submitted in narrative form, shall clearly describe the state program for implementing intrastate TRS, and the procedures and remedies for enforcing any requirements imposed by the state program. The [FCC] shall give public notice of states filing for certification including notification in the Federal Register.*

The Commonwealth of Pennsylvania acting by and through the PA PUC is currently certified to provide intrastate TRS/CTRS through July 26, 2018. This application is submitted to re-certify the Commonwealth of Pennsylvania acting by and through the PA PUC to provide relay service for an additional five years. The PA TRS and PA CTRS are not internet-based services.

(b)

> *(1) Requirements for state certification. After review of state documentation, the [FCC] shall certify, by letter, or order, the state program if the [FCC] determines that the state certification documentation:*
>
> > *(i) Establishes that the state program meets or exceeds all operational, technical, and functional minimum standards contained in §64.604;*
> >
> > *(ii) Establishes that the state program makes available adequate procedures and remedies for enforcing the requirements of the state program, including that it makes available to TRS users informational materials on state and Commission complaint procedures sufficient for users to know the proper procedures for filing complaints; and*

The PA PUC regulates the provision of relay service in Pennsylvania and has established rules and procedures for service standards as well as complaint resolution and other necessary enforcement remedies. The CPC issued by the PA PUC to Hamilton Relay for TRS and the contract between the PA PUC and Hamilton Telephone for CTRS provide that all state and federal laws shall be complied with. Failure to do so by Hamilton Relay would be a breach of its certificated authority for which the PA PUC could impose sanctions up to and including revocation of Hamilton Relay's CPC. Failure to do so by Hamilton Telephone would be a breach of contract for which the PA PUC could impose sanctions up to and including termination the CTRS contract. Consumers can file complaints or petitions concerning PA TRS and PA CTRS. Complaint resolution procedures established by the Hamilton entities and by the PA PUC, as well as FCC complaint processes, are described on PA relay website and in PA relay brochures. Further information on the Hamilton and PA PUC procedures are detailed above.

(iii) Where a state program exceeds the mandatory minimum standards contained in §64.604, the state establishes [that its program in no way conflicts with federal law].

As demonstrated below, where the PA relay program exceeds the mandatory minimum standards contained in Section 64.604, the PA TRS in no way conflicts with federal law. PA relay exceeds mandatory minimum standards contained in Section 64.604 in terms of the following items:

CA Training and Procedures
PA relay not only meets but also exceeds FCC CA standards in the areas of hiring and training practices, typing speed to accuracy, and in-call replacement of CAs.

Typing 60 Words Per Minute
CAs must type 60 words per minute (wpm) for five minutes. PA relay requires CAs to maintain a 95% accuracy level while typing 60 wpm for 5 minutes.

Turbo Code and Enhanced Turbo Code (E_Turbo)
PA TRS exceeds the FCC requirement that TRS shall be capable of communicating with ASCII and Baudot formats, at any speed generally in use. PA TRS provides Turbo Code, a proprietary alternate protocol developed by Ultratec, as an enhanced protocol and has secured a license from Ultratec to use this protocol in its relay modems. Turbo Code is faster than Baudot (similar to "real-time") and does not have the limitation of ASCII. Turbo Code also allows for "interrupt" capability while one party is still typing. PA TRS users can automatically connect "Turbo Code" on every relay call type. Enhanced Turbo Code is closer to functionally equivalent with traditional voice calls. TRS users whose TTYs include E-Turbo (the TTY must be E-Turbo capable) push a "relay" button, then dial the number of the person they are calling directly. E-Turbo-equipped TTYs store user specific data (which the user has total control over) and handle the details of connecting to the relay service, automatically transmitting caller preferences such as long distance carrier of choice, VCO preference, and CA gender preference, etc. Each time a TRS call is placed, these details are automatically passed on from the E-Turbo TTY to the relay service. Because this exchange is done automatically "behind the scenes," the need for the TTY caller to "set up" the call with the CA is eliminated.

Spanish-to-Spanish Relay and Spanish-to-English Translation
PA relay provides Spanish-to-Spanish and Spanish-to-English translation services on relay calls for the same call types as it does with English-to-English relay calls. When recruiting and training bilingual CAs, PA relay requires the CAs pass a Spanish test, attend a Spanish orientation class, and take all standard CA and STS training prior to relaying Spanish-to-Spanish calls. Relay users who always want to have their calls answered by a Spanish-speaking CA can select "Spanish" as an option on their Customer Profile. This option allows Spanish-speaking relay users who dial 711 to have their calls automatically answered by a Spanish-speaking CA.

(c)

(1) State certification period. State certification shall remain in effect for five years. One year prior to expiration of certification, a state may apply for renewal of its certification by filing documentation as prescribed by paragraphs (a) and (b) of this section.